UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/424,661	11/29/1999	TATSUYA MITSUGI	1163-258P	8311

7590 05/18/2004	EXAMINER
BIRCH STEWART KOLASCH & BIRCH	ALI, MOHAMMAD
PO BOX 747	
FALLS CHURCH, VA 220400747	

ART UNIT	PAPER NUMBER
2177	

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/424,661	MITSUGI, TATSUYA
	Examiner	Art Unit
	Mohammad Ali	2177

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 March 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-3,6 and 8-17* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6 and 8-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>31 March 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1. This communication is in response to the amendment filed on March 08, 2004.

Claims 1-3, 6, and 8-17 are pending in this Office action and claims 2, 4-5 and 7

have been cancelled.

Drawings correction has been approved by the Examiner (Paper No. 23).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 6, and 8-17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over US Patent 6,076,088 issued to Paik et al. ('Paik' hereinafter) in view

of US Patent 5,948,040 issued to DeLorme et al. ('DeLorme' hereinafter)

As to claim 1,

Paik discloses, an object data search apparatus (col. 6, lines 44-46). Paik

teaches, 'a database for storing object data in association with plurality of categories

attribute words categorized according to sentence elements of natural language' as

copula sentences whose subject is a proper name. If an apposition belongs to the

apposition proper category, then there is at least one noun phrase in the apposition that

refers to the same entity to which the proper name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63 et seq). Further Paik teaches, 'an input unit for receiving an input search of a search criterion in the form of a sentence natural language' as an information extraction systems that allows users (input) to ask questions about documents in a database, and responds to queries by returning possibly relevant information which is extracted from the documents (col. 3 lines 37-41, col. 4, lines 60-61 et seq). Paik teaches, 'a criterion retrieval unit for analyzing the search criterion in the form of the sentence and retrieving on or more plurality of categorized search words respectively categorized corresponding sentence elements categories of the natural language' as copula sentences whose subject is a proper name. If an apposition belongs to the apposition proper category, then there is at least one noun phrase in the apposition that refers to the same entity to which the proper name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63 et seq). Paik teaches, 'an object retrieval unit for categorically searching sentence categories the database using each of the search words respectively associated with the categorized sentence element categories, and retrieving the object data associated with the attribute

words that match a single search word or a plurality of search words in the same

category, wherein filtering for attribute relation based on the grammatical structure of

the natural language is performed' as copula sentences whose subject is a proper

name. If an apposition belongs to the apposition proper category, then there is at least

one noun phrase in the apposition that refers to the same entity to which the proper

name, which precedes or follows the apposition refers. For example, the sentence "Mr.

Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a copula is a word or

set of words (in this case, "is an") that act as connecting links (associated) between

subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63, col. 22 lines

14-44, col. 32, lines 5-54 et seq). Finally, Paik teaches, 'an output apparatus for

outputting the object data thus retrieved' as an information extraction systems that

allows users (input) to ask questions about documents in a database, and responds

(output) to queries by returning possibly relevant information which is extracted from the

documents (col. 3 lines 37-41, col. 4, lines 60-61 et seq).

Paik does not explicitly teaches destination object, as described in the present

invention. However, DeLoreme teaches an analogous method wherein the

Computerized travel reservation information and planning system that generates "map

ticket" output in various media, for guidance and transactions en route (Abstract, lines 1-

5 et seq). It would have been obvious to one ordinarily skilled in the art of object data

processing, at the time of the present invention, to combine the teachings of the cited

references because the travel destination of DeLorme's method would have provided

Paik's with the necessary infrastructure, which would allow the travel destination to

process their respective tasks ,as explained in DeLorme, (Astract, lines 1-5 et seq).

As to claim 2,

Paik teaches 'database stores destination data at least associated with an

attribute word having agent of action category, an attribute word having an action

category and an attribute word having the object of action category' as the subject

concept is the cause on an action happening, or it may be the recipient of the effects of

an action or event. These are different relations which distinguish how the same two

concepts. For instance, the two sentences, "Fred raised taxes," and "Fred's taxes were

raised" both deal with the same concepts, but the relations between them are entirely

different. Fred is the agent of the action "raised" in the first sentence, while Fred is the

recipient of the action "raising taxes" in the second sentence (col. 13, lines 46-55 et

seq).

As to claim 3,

Paik Substantially discloses the claimed invention including, a method of

searching object data (col. 6, lines 44-46). Paik teaches 'receiving input of search

crieteria,....' as (col. 14, lines 33-63 et seq). Paik teaches the claimed step of 'retrieving

one or plurality or search words from a search criterion input in the form of a sentence

of a natural language,...' as copula sentences whose subject is a proper name. If an

apposition belongs to the apposition proper category, then there is at least one noun

phrase in the apposition that refers to the same entity to which the proper name, which

precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . .

Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words
(in this case, "is an") that act as connecting links (associated) between subject (the
proper named Mr. Tessitor) and predicate (col. 14, lines 33-63 et seq). Further, Paik
teaches the claimed step of 'conduction a category-by-category search relative to a
plurality of sentence element categories associated with a single search word or a
plurality of search words' as copula sentences whose subject is a proper name. If an
apposition belongs to the apposition proper category, then there is at least one noun
phrase in the apposition that refers to the same entity to which the proper name, which
precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . .
Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words
(in this case, "is an") that act as connecting links (associated) between subject (the
proper named Mr. Tessitor) and predicate (col. 14, lines 33-63, col. 22 lines 14-44, col.
32, lines 5-54 et seq). Paik teaches the claimed step of 'retrieving object data
associated with the attribute word that matches a single search word,...' as an
information extraction systems that allows users (input) to ask questions about
documents in a database, and responds (output) to queries by returning possibly
relevant information which is extracted from the documents (col. 3 lines 37-41, col. 4,
lines 60-61 et seq). Finally, Paik teaches the claimed step of 'said conducting and
retrieving using at least a search word having an agent of action category, a search
word having an action category and search word having an object category' as the
subject concept is the cause on an action happening, or it may be the recipient of the
effects of an action or event. These are different relations which distinguish how the

same two concepts. For instance, the two sentences, "Fred raised taxes," and "Fred's taxes were raised" both deal with the same concepts, but the relations between them are entirely different. Fred is the agent of the action "raised" in the first sentence, while Fred is the recipient of the action "raising taxes" in the second sentence (col. 13, lines 46-55 et seq). Paik does not teach destination of travel data, as described in the present invention. However, DeLoreme teaches an analogous method wherein the Computerized travel reservation information and planning system that generates "map ticket" output in various media, for guidance and transactions en route (Abstract, lines 1-5 et seq). It would have been obvious to one ordinarily skilled in the art of object data processing, at the time of the present invention, to combine the teachings of the cited references because the travel destination of DeLorme's method would have provided Paik's with the necessary infrastructure, which would allow the travel destination to process their respective tasks ,as explained in DeLorme, (Astract, lines 1-5 et seq).

As per claim 6,

Paik teaches, 'said data retrieval unit retrieving plurality of tuples retrieved in a search are filtered so that overlapping tuples are filtered off and filtering for attribute relations based on the grammatical structure of the natural language is performed' as filtering the set of retrieved CRCs according to user input. The frequency and/or recency of a CRC is used to filter or limit the number of documents reported (col. 32, lines 50-54 et seq).

As to claim 8,

Paik discloses, a method of searching object data (col. 6, lines 44-46). Paik

teaches the claimed step of 'a database for storing object data in association with

plurality of categorized attribute words, wherein the attribute words are categorized and

stored according to sentence elements of natural language' as copula sentences whose

subject is a proper name. If an apposition belongs to the apposition proper category,

then there is at least one noun phrase in the apposition that refers to the same entity to

which the proper name, which precedes or follows the apposition refers. For example,

the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a

copula is a word or set of words (in this case, "is an") that act as connecting links

(associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14,

lines 33-63 et seq). Further, Paik teaches the claimed step of 'receiving input of search

crieteria,....' as an information extraction systems that allows users (input) to ask

questions about documents in a database, and responds to queries by returning

possibly relevant information which is extracted from the documents (col. 3 lines 37-41,

col. 4, lines 60-61 et seq). Paik teaches the claimed step of 'analyzing the search

criterion in the form of the sentence and retrieving on or more plurality of search words

respectively corresponding sentence elements categories of the natural language' as

copula sentences whose subject is a proper name. If an apposition belongs to the

apposition proper category, then there is at least one noun phrase in the apposition that

refers to the same entity to which the proper name, which precedes or follows the

apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a

copula form: in grammatical logic, a copula is a word or set of words (in this case, "is

an") that act as connecting links (associated) between subject (the proper named Mr.

Tessitor) and predicate (col. 14, lines 33-63 et seq). Paik teaches the claimed step of

'searching the database using each of the search words respectively associated with

the sentence element categories, and retrieving the object data associated with the

attribute words that match a single search word or a plurality of search words wherein

filtering for attribute relation based on the grammatical structure of the natural language

is performed' as copula sentences whose subject is a proper name. If an apposition

belongs to the apposition proper category, then there is at least one noun phrase in the

apposition that refers to the same entity to which the proper name, which precedes or

follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee."

has a copula form: in grammatical logic, a copula is a word or set of words (in this case,

"is an") that act as connecting links (associated) between subject (the proper named Mr.

Tessitor) and predicate (col. 14, lines 33-63, col. 22 lines 14-44, col. 32, lines 5-54 et

seq). Finally, Paik teaches the claimed step of 'outputting the object data thus retrieved'

as an information extraction systems that allows users (input) to ask questions about

documents in a database, and responds (output) to queries by returning possibly

relevant information which is extracted from the documents (col. 3 lines 37-41, col. 4,

lines 60-61 et seq).

Paik does not explicitly teaches destination of travel data, as described in the

present invention. However, DeLoreme teaches an analogous method wherein the

Computerized travel reservation information and planning system that generates "map

ticket" output in various media, for guidance and transactions en route (Abstract, lines 1-

5 et seq). It would have been obvious to one ordinarily skilled in the art of object data
processing, at the time of the present invention, to combine the teachings of the cited
references because the travel destination of DeLorme's method would have provided
Paik's with the necessary infrastructure, which would allow the travel destination to
process their respective tasks ,as explained in DeLorme, (Astract, lines 1-5 et seq).

As to claim 9,

Paik discloses, a method for determining a destination based on a natural
language query (col. 6, lines 44-46). Paik teaches, 'storing object data in association
with plurality of categories attribute words categorized according to sentence
elements,…' as copula sentences whose subject is a proper name. If an apposition
belongs to the apposition proper category, then there is at least one noun phrase in the
apposition that refers to the same entity to which the proper name, which precedes or
follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee."
has a copula form: in grammatical logic, a copula is a word or set of words (in this case,
"is an") that act as connecting links (associated) between subject (the proper named Mr.
Tessitor) and predicate (col. 14, lines 33-63 et seq). Further Paik teaches, 'inputting a
query utilizing natural language sentence' as an information extraction systems that
allows users (input) to ask questions about documents in a database, and responds to
queries by returning possibly relevant information which is extracted from the
documents (col. 3 lines 37-41, col. 4, lines 60-61 et seq). Paik teaches, 'retrieving one
or more plurality of categorized search words respectively categorized corresponding

sentence elements categories of the natural language' as copula sentences whose

subject is a proper name. If an apposition belongs to the apposition proper category,

then there is at least one noun phrase in the apposition that refers to the same entity to

which the proper name, which precedes or follows the apposition refers. For example,

the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a

copula is a word or set of words (in this case, "is an") that act as connecting links

(associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14,

lines 33-63 et seq). Paik teaches, 'categorically searching the attribute words,....' as

copula sentences whose subject is a proper name. If an apposition belongs to the

apposition proper category, then there is at least one noun phrase in the apposition that

refers to the same entity to which the proper name, which precedes or follows the

apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a

copula form: in grammatical logic, a copula is a word or set of words (in this case, "is

an") that act as connecting links (associated) between subject (the proper named Mr.

Tessitor) and predicate (col. 14, lines 33-63, col. 22 lines 14-44, col. 32, lines 5-54 et

seq). Finally, Paik teaches, 'outputting the destination object data retrieved by said

categorical search' as an information extraction systems that allows users (input) to ask

questions about documents in a database, and responds (output) to queries by

returning possibly relevant information which is extracted from the documents (col. 3

lines 37-41, col. 4, lines 60-61 et seq).

Paik does not explicitly teaches destination object, as described in the present

invention. However, DeLoreme teaches an analogous method wherein the

Computerized travel reservation information and planning system that generates "map ticket" output in various media, for guidance and transactions en route (Abstract, lines 1-5 et seq). It would have been obvious to one ordinarily skilled in the art of object data processing, at the time of the present invention, to combine the teachings of the cited references because the travel destination of DeLorme's method would have provided Paik's with the necessary infrastructure, which would allow the travel destination to process their respective tasks ,as explained in DeLorme, (Astract, lines 1-5 et seq).

As to claim 10,

Paik discloses said categorical searching (see col. 14, lines 33-63): Paik discloses 'when the search is in agent-of-action,.....' as copula sentences whose subject is a proper name. If an apposition belongs to the apposition proper category, then there is at least one noun phrase in the apposition that refers to the same entity to which the proper name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63 et seq). Paik discloses 'when the search word is the action category,...." as copula sentences whose subject is a proper name. If an apposition belongs to the apposition proper category, then there is at least one noun phrase in the apposition that refers to the same entity to which the proper name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a

copula form: in grammatical logic, a copula is a word or set of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63, col. 22 lines 14-44, col. 32, lines 5-54 et seq).. Paik disclose 'when the search word is in the object-of-action category,...as as copula sentences whose subject is a proper name. If an apposition belongs to the apposition proper category, then there is at least one noun phrase in the apposition that refers to the same entity to which the proper name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63, col. 22 lines 14-44, col. 32, lines 5-54 et seq).

As to claim 11,

Paik discloses 'wherein the categories include agent-of-action,....' As as copula sentences whose subject is a proper name. If an apposition belongs to the apposition proper category, then there is at least one noun phrase in the apposition that refers to the same entity to which the proper name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63 et seq).

As to claim 12,

Paik discloses 'wherein the destination object data includes destination position,...' as copula sentences whose subject is a proper name. If an apposition belongs to the apposition proper category, then there is at least one noun phrase in the apposition that refers to the same entity to which the proper name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63 et seq)

As to claim 13,

Paik discloses 'filtering for attribute relation based on a grammatical structure query' as filtering the set of retrieved CRCs according to user input. The frequency and/or recency of a CRC is used to filter or limit the number of documents reported (col. 32, lines 50-54 et seq).

As per claim 14,

Paik discloses 'said receiving step receiving a voice input of search criteria in the form of a sentence of the natural language' as (col. 7, lines 20-21, Paik).

As per claim 15,

Paik discloses 'said receiving step receiving a voice input of search criteria in the form of a sentence of the natural language' as (col. 7, lines 20-21, Paik).

As per claim 16,

Paik discloses 'said receiving step receiving a voice input of search criteria in the form of a sentence of the natural language' as (col. 7, lines 20-21, Paik).

As per claim 17,

Paik discloses 'said inputting step inputting a voiced query utilizing the natural language sentence and said retrieving step retrieving one or more categorized search words from the voiced query' as (col. 7, lines 20-21 et seq, Paik).

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is (703) 605-4356. The examiner can normally be reached on Monday to Thursday from 7:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (703) 305-9790 or Customer Service (703) 306-5631. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for any communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

Mohammad Ali

Patent Examiner

AU 2177

MA

May 13, 2004